

Mix and match

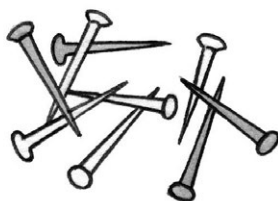


Background knowledge

Mixtures are two or more materials combined together. They can be separated in many different ways. To find out which is the best way to separate a mixture, you must first ask yourself some important questions. For example, are the materials in the mixture soluble? Are the materials attracted to a magnet? Do the materials change when they are heated? What size are the particles in the mixture?

Science activity

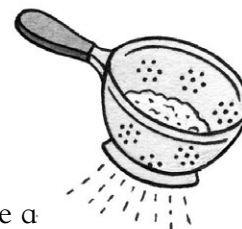
On the left, you can see four mixtures. On the right are four different methods for separating mixtures. Draw a line between each mixture and the best separation method. On a separate piece of paper, explain your choice.



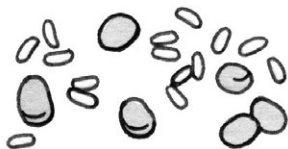
Steel nails and
copper nails



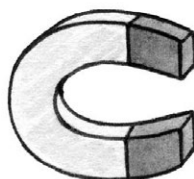
Dissolve in water
and then use a filter.



Use a
colander.



Rice and mung beans



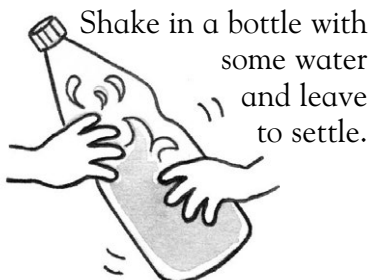
Use a magnet.



Soil containing
mud and sand



Sand and salt



Science investigation

⚠ **Take extra care - ask an adult to supervise you.**

Suppose somebody mixed together sand, paper clips, and sugar. Design and conduct an experiment that will separate the three materials from one another. How could you get the sugar back if you dissolved it in water?

Mix and match

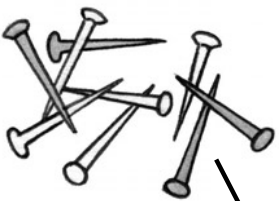

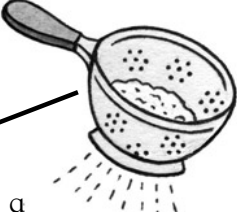

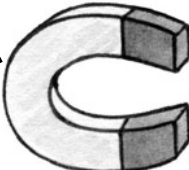

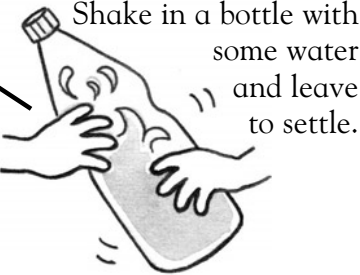
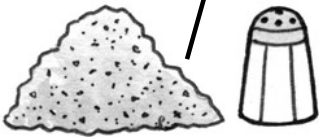


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Science activity

On the left, you can see four mixtures. On the right are four different methods for separating mixtures. Draw a line between each mixture and the best separation method. On a separate piece of paper, explain your choice.

 Steel nails and copper nails	 Dissolve in water and then use a filter.	 Use a colander.
 Rice and mung beans	 Use a magnet.	
 Soil containing mud and sand	 Shake in a bottle with some water and leave to settle.	
 Sand and salt		

Science investigation

❗ Sugar dissolves in water while sand does not. If water is added to the mixture, the sand can be separated with a coffee filter. The sugar can be separated from the water by boiling off the water—be careful not to burn the sugar.